REMARKS

Claims 1-20 are pending in this application. Claims 1-20 are rejected. Claims 1, 2, 9, 10, 17 and 18 have been amended. No new matter has been added. It is respectfully submitted that the pending claims define allowable subject matter.

Claims 1-20 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Office Action states that the numerous instances of "an output" renders the claims indefinite. Further, the Office Action states that the recitations regarding the first memory storing a data object longer than a second memory are indefinite. Also, the Office Action states that the sequence of storing is indefinite. Applicant has amended the claims to be more definite. Accordingly, Applicant submits that the 35 U.S.C. § 112, second paragraph, rejection has been overcome and should be withdrawn.

Claims 1, 2, 5-10 and 13-18 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Hoang et al. (U.S. Patent 6,023,343). Applicant respectfully traverses this rejection.

Hoang describes a method for improving printer performance by using a hard disk drive resident in the printer to temporarily store some page data of print jobs received by a printer (abstract). In operation, only certain pages are stored on the hard disk drive, while other pages remain in RAM, allowing the printer to continue printing the entire print job at the printer's overall rated print speed, especially when, for example, only every fourth page has been stored on the disk while the other three pages are immediately available in RAM. In a preferred embodiment, only every fourth page is stored on the hard disk drive, and this effectively spreads out the effects of the slower disk access time across several pages as they are printed. If more and more RAM area is requested by the printer either before or while a print job is currently printing at the print engine, then it may become necessary to store more pages on the hard disk drive, such as every third page, and if the trend continues to demand more RAM area for other functions, then every second page will be stored on the hard disk drive. In many printers, the

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overall rated print speed can still be maintained even when every second page is temporarily stored on the hard disk drive, so long as the interleaving pages remain in RAM (column 2, line 60 to column 3, line 12).

In the preferred embodiment, if the requests for memory space become so burdensome that even more pages of the print job must be stored on the hard disk drive, then the printer of the will finally begin to store every single page on the hard disk drive, and this procedure could continue until no pages at all are left in RAM. In this situation, the printer may not be able to continue printing at its rated print speed, although the use of shared memory tables will alleviate some of the effects of the "lost" speed by adding further efficiency (column 3, lines 13-22).

Specifically, a Disk Collation Task is used at times when the printer's main memory system (i.e., its RAM) becomes so full of data that the printer begins operating in a mode where some RAM space is requested to be freed so that the printer can perform the next function according to its overall control program (column 8, lines 2-7). Once RAM becomes scarce within the printer 10, a Print Queue Supervisor 34 will send a message from a function block 112 asking the Disk Collation Task to begin storing pages of print data on a hard disk drive 38. It is most desirable to use this optional hard disk drive within the printer in a manner that allows the printer to continue printing at its overall rated speed, and therefore, only every fourth page is initially stored to the hard disk. If the storing of these one out of four pages in disk frees up enough memory space for the printer to continue its operations, then only every fourth page being printed for this particular print job need be retrieved off the hard disk. This leaves the other three out of four pages in RAM, which can of course be retrieved very quickly for presentation to the print engine 36 as needed. The effect of the slower access time of the hard disk drive will then be spread across several pages, which allow the printer to maintain its overall rated print speed more often (column 8, lines 47-55).

Independent claim 1, as amended, recites a method for managing outputs to peripheral devices in medical systems devices comprising "storing the data object in a second memory to be output to the peripheral device" and "storing the data object in a first memory if the peripheral

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device is not available to accept the data object, wherein the first memory stores the data object for a longer term than the second memory." Hoang et al. fails to describe or suggest such a method.

The system of Hoang et al. allocates memory based on usage of printer resources. The system determines how much memory is being used and how much processing is needed or capable of being performed based on the available memory. Based on this determination, data is allocated between different storage memories. However, in contrast to the method of claim 1, the system of Hoang et al. never makes a determination of whether the printer device is available. The system of Hoang et al. determines whether a printer is capable to accept the data based on usage. The printer is always available to accept data, and if the printer were not available, the system of Hoang et al. would fail to operate because the system needs the memory storage within the printer during operation. There is simply no description or suggestion in Hoang et al. of determining whether a peripheral device is not available. The system of Hoang et al. continues to use the printer even if it is not capable of storing further data in a particular preferred memory, which results in a degradation of printer performance. As such, the printer is always available to accept data, it just stores the data in different locations based on the resources being used. Thus, Hoang et al. does not describe or suggest a method as recited in claim 1.

Claims 2 and 5-8 depend from independent claim 1. When the recitations of claims 2 and 5-8 are considered in combination with the recitations of claim 1, Applicant submits that dependent claims 2 and 5-8 are likewise patentable over Hoang et al. for at least the same reasons set forth above.

Independent claim 9, as amended, recites an imaging system comprising "a processor operationally coupled to said source, said processor configured to... instruct to store the data object in a second memory to be output to the peripheral device... and instruct to store the data object in a first memory if the peripheral device is not available to accept the data object, wherein the first memory stores the data object for a longer term than the second memory." Hoang et al. fails to describe or suggest such a system.

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As described in more detail above in connection with claim 1, Hoang et al. simply does not describe or suggest a system wherein a determination is made as to whether a "peripheral device is not available." Hoang et al. simply determines whether the printer memory is capable of handling additional data, not whether the printer is available. Thus, Hoang et al. does not describe or suggest a system as recited in claim 9.

Claims 10 and 13-16 depend from independent claim 9. When the recitations of claims 10 and 13-16 are considered in combination with the recitations of claim 9, Applicant submits that dependent claims 10 and 13-16 are likewise patentable over Hoang et al. for at least the same reasons set forth above.

Claim 17, as amended, recites a computer-readable medium encoded with a program configured to "instruct to store the data object in a second memory to be output to the peripheral device" and "instruct to store the data object in a first memory if the peripheral device is not available to accept the data object, wherein said first memory stores the data object for a longer term than the second memory." Hoang et al. fails to describe or suggest such a computer-readable medium.

As described in more detail above in connection with claim 1, Hoang et al. simply does not describe or suggest a system wherein a determination is made as to whether a "peripheral device is not available." Hoang et al. simply determines whether the printer memory is capable of handling additional data, not whether the printer is available. Thus, Hoang et al. does not describe or suggest a computer-readable medium as recited in claim 17.

Claim 18 depends from independent claim 17. When the recitations of claim 18 are considered in combination with the recitations of claim 17, Applicant submits that dependent claim 18 is likewise patentable over Hoang et al. for at least the same reasons set forth above.

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Thus, for at least the reasons set forth above, Applicant respectfully requests that the 35 U.S.C. § 102(b) rejection of claims 1, 2, 5-10 and 13-18 be withdrawn.

Claims 3, 11 and 19 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoang et al. (U.S. Patent 6,023,343) in view of Lester et al. (U.S. Patent Application Publication 2003/0053109). Applicant respectfully traverses this rejection.

Even from a cursory reading of the Lester et al. reference, this reference fails to make up for the deficiencies of the Hoang et al. reference. Further, claim 3 depends from claim 1, claim 11 depends from claim 9 and claim 19 depends from claim 17. Accordingly, when the recitations of claims 3, 11 and 19 are considered in combination with the recitations of claims 1, 9 and 17, respectively, Applicant submits that dependent claims 3, 11 and 19 are likewise patentable over Hoang et al. in combination with Lester et al. for at least the same reasons set forth above.

Claims 4, 12 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Hoang et al. (U.S. Patent 6,023,343) in view of Raney (U.S. Patent Application Publication 2002/0063880). Applicant respectfully traverses this rejection.

Even from a cursory reading of the Raney reference, this reference fails to make up for the deficiencies of the Hoang et al. reference. Further, claim 4 depends from claim 1, claim 12 depends from claim 9 and claim 20 depends from claim 17. Accordingly, when the recitations of claims 4, 12 and 20 are considered in combination with the recitations of claims 1, 9 and 17, respectively, Applicant submits that dependent claims 4, 12 and 20 are likewise patentable over Hoang et al. in combination with Raney for at least the same reasons set forth above.
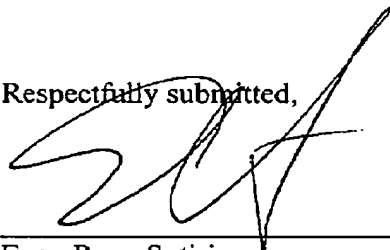
Thus, for at least the reasons set forth above, Applicant respectfully requests that the 35 U.S.C. § 103(a) rejection of claims 3, 4, 11, 12, 19 and 20 be withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art fails to teach or suggest the claimed invention and all of the pending claims in this

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application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited. Should anything remain in order to place the present application in condition for allowance, the Examiner is kindly invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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